



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,791	09/17/2003	Emanuele Jones	3450-Z	3778

7590 11/28/2007

Law Office of Jim Zegeer
Suite 108
801 North Pitt Street
Alexandria, VA 22314

EXAMINER	
FOUD, HICHAM B	

ART UNIT	PAPER NUMBER
2619	

MAIL DATE	DELIVERY MODE
11/28/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/663,791

Applicant(s)

JONES ET AL.

Examiner

Hicham B. Foud

Art Unit

2619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 9-18 is/are rejected.
- 7) ☒ Claim(s) 7-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The amendment filed on 09-13-2007 has been entered and considered.

Claims 1-18 are pending in this application.

Claims 1-6 and 9-18 remain rejected as discussed below.

Claims 7-8 are objected.

Claim Objections

2. Claims 1-18 are objected to because of the following informalities:

For claims 1-18, the terms such as TTL have to be written in full.

For claims 1, 7, 10, 12 and 16, the term "and" needs to be added before the last limitation.

Claim 10 has been amended and the amended terms were not underlined and the terms removed were not shown in the amended claim.

Claims 2-6, 8-9, 11, 13-15 and 17-18 are objected because of their dependency on the objected claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9-11 and 13-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

For claim 10, the recitation "wherein each upstream marking station is assigned k values $V_{sub.i}$ ($V_{sub.j}$, $V_{sub.2}$, . . . $V_{sub.J}$ and k associated ratios $R_{sub.i}$ ($R_{sub.1}$, $R_{sub.2}$, . . . $R_{sub.k}$); where the sum of all k ratios R. is 100%" is vague and unclear because it is not known what "k", "V" and "R" are, and the relationship between the "V" values and the "R" values.

For claim 11, the recitation "wherein the marking of packets is performed using in succession a different one of said schema over a like plurality of consecutive time windows" is vague and indefinite because it is not known what the metes and the bounds of the claimed invention.

For claim 16, the term "the TTL" in line 5 has no antecedent basis.

Claims 9, 13-15 and 17-18 are rejected because of their dependency on the rejected claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6 and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Soppera (US 2003/0172289).

For claims 1 and 12, Soppera discloses a method and a system of determining, in a communications network, an upstream station, among several other candidates, traversed by a packet arriving at a downstream station, comprising the steps of: a) marking the TTL field of the packet flow arriving at the upstream station, in a manner that uniquely identifies the upstream station among all the other concurrently marking upstream stations so that the TTL may be used as a covert channel (see page 4 paragraph 0057 lines 1-2; marking is carried out in the TTL field); b) receiving and identifying at the downstream station a marked packet flow (see page 4 paragraph 0057 lines 7-8; thus it will recognize packets coming by means of a characteristic TTL) ; c) determining, depending upon the TTL field of the marked packet flow received, that said packet flow traversed the upstream station (see page 4 paragraph 0057 lines 10-12; The victim knows the distance to the selected router, from information in the authenticated traceback packets).

For claim 2, Soppera discloses a method wherein step c) involves comparing the value of the TTL field of packets in a flow to which said packets belong with and without marking being performed, thereby enabling the manner of marking, which identifies the upstream station, to be determined (see page 4 paragraph 0057 lines 7-8; thus it will recognize packets coming by means of a characteristic TTL).

For claims 3, Soppera discloses a method and a system wherein packets are marked at each selected station by a single static value assigned by an external entity (see page 4 paragraph 0057 lines 3-4; the TTL information is set by the selected router and lines and lines 6-7; The victim specifies this number at the router; inherently the specification of the number can be statically by saving that number in the router by the victim computer).

For claims 4, Soppera discloses a method and a system wherein packets are marked at each selected station by a single dynamic value assigned by an external entity (see page 4 paragraph 0057 lines 3-4; the TTL information is set by the selected router and lines and lines 6-7; The victim specifies this number at the router; inherently the specification of the number can be dynamically by choosing that number specifically and not randomly).

For claim 5, Soppera discloses a method wherein packets are marked at each selected station by plural dynamic values and associated marking scheme assigned by an external entity (see page 4 paragraph 0057 lines 7-10; thus it will recognise packets coming by means of a characteristic TTL, equal to the specified initial TTL minus the number of hops the router is away).

For claim 6, Soppera discloses a method wherein the application of a value to the TTL field is one of add, subtract and replace (see page 4 paragraph 0057 lines 7-10; thus it will recognise packets coming by means of a characteristic TTL, equal to the specified initial TTL minus the number of hops the router is away).

Allowable Subject Matter

5. Claims 7-8 would be allowable if rewritten to overcome the objection(s), set forth in this Office action.

6. Claims 10 and 16 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Response to Argument

7. Applicant's arguments filed have been fully considered but they are not persuasive.

In page 9 of the Remarks, the applicant argues that Soppera does not teach the use of the TTL as a covert channel and that the applicant uses TTL as a covert channel. However, the claim language does not specify that the TTL is used as a covert channel and makes it only optional, since as it may be used as a covert channel, or it may not be used. Also, it is not known what the term "covert channel" means, because although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hicham B. Foud whose telephone number is 571-270-1463. The examiner can normally be reached on Monday - Thursday 10-3 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Hicham Foud
11/14/2007



CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600